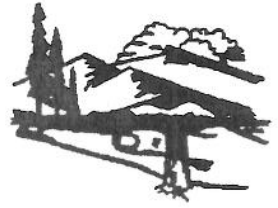




# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Dave Freudenthal, Governor

John Corra, Director

## Casper Environmental Investigation Site Update Updated February 2010

### Background

A group of chemicals known as volatile organic compounds (VOCs) are commonly used in industrial settings, manufacturing and dry cleaning operations, and are often found in some household products. These compounds can enter the environment through leaks, spills or improper disposal. The compounds can accumulate in soil, surface or groundwater or vaporize into the air. When these compounds are suspected to have entered the environment, sampling and testing is often conducted to determine the presence, type, and concentration (quantity) of the compound that may be present.

The Orphan Site Remediation law (Article 17) passed in 2000, required the Wyoming Department of Environmental Quality (DEQ) to inventory and determine cost estimates and to propose funding sources for the investigation and cleanup of orphan sites (including those suspected of having VOCs released into the environment). Orphan sites are areas where there may be environmental impacts, but the source of the contamination is unknown and/or there are no viable responsible parties or such parties cannot be identified.

Environmental testing in 1994 revealed the presence of VOCs in the groundwater at three locations in downtown Casper and one location in North Casper. Groundwater in the downtown area west of North Center Street flows in a northwest direction and is located approximately 6 to 10 feet below the ground. Groundwater east of North Center Street in the downtown area and groundwater in the North Casper area flows in a northeast direction and is located approximately 6 to 24 feet below the ground.

**Drinking water in the area is safe as it is supplied by the city water source.**

### Environmental Activities and Findings

In the fall of 2009, the DEQ and their contractors conducted additional environmental testing to determine if conditions, identified in 1994, have changed. The initial investigation took place between Nichols Avenue and North Park Street, north of the Yellowstone Highway in downtown Casper to assess conditions in the groundwater and soil. In the North Casper area, environmental sampling occurred in two areas between North Center Street and North Washington Street, north of Interstate 25. The work was conducted from November 2 through approximately mid- December 2009.

The testing was done to determine if contamination exists and if so to identify the location and extent of the contamination. The investigation focused on one VOC in particular: perchloroethylene (PCE), a chemical commonly used to clean tools and in dry-cleaning processes. DEQ collected groundwater and soil gas vapor samples. The groundwater samples were collected from 10 new groundwater monitoring wells and nine existing wells in the area. Soil vapor in the shallow soils was collected through 40 probes installed 5 feet below the ground surface.



### **Preliminary Study Results**

Levels of PCE were detected in the soil gas and groundwater in the area studied at concentrations that exceed acceptable levels. As a result, the DEQ advises certain actions for buildings in close proximity to the affected groundwater or soil vapor, either installation of a ventilation system or indoor air testing, to determine if the chemical has impacted indoor air quality. PCE has the ability to travel from groundwater as a *vapor* through soil and possibly enter buildings through the foundation.

DEQ is contacting and working directly with property owners within these areas to discuss further actions, which may include additional testing and/or the installation of a ventilation system, depending upon the type of building and location of the property. DEQ will obtain permission from property owners to perform any work deemed necessary for select buildings targeted for future actions. **If DEQ determines further action is needed at a particular building or house, the property owner is being contacted directly. For property owners who do not receive notice from DEQ, it means no action at their property is required at this time.**

For buildings, where indoor air is anticipated to exceed acceptable levels, or where tests indicate indoor air is above the acceptable levels, a ventilation system will be installed at no expense to the property owners. Ventilation systems commonly used to stop vapors from entering a building are known as "sub-slab" systems. The systems are the same ones used to address naturally occurring radon; therefore, they will also protect a building from radon. Sub-slab systems are quiet to operate and can be installed to be visually unobtrusive.

**Though the presence of low levels of PCE is not believed to pose an immediate health risk,** this is a common approach used at sites with similar conditions and is considered the best course of action to protect public health.

DEQ will continue to evaluate test results to determine if additional testing is necessary.

### **For More Information**

**For more information, please contact:**

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